

# **Historical demography in the Philippines:** *current trends and future perspectives*

FRANCIS A. GEALOGO

Sa gitna ng paglawak ng sakop ng pag-aaral ng kasaysayan, tinatalakay ng papel na ito ang kasalukuyang antas ng paksang demograpiyang historikal sa Pilipinas. Ipaliliwanag ang sakop ng bagong larangang ito kaugnay ng bagong pag-unlad sa historiograpiyang Pilipino. Ang iba't-ibang batis pangkasaysayan na maaring magamit ng mga *historian* at *demographer* ay bibigyang paliwanag. Ang mga metodo at pamamaraan sa pagsasagawa ng demograpiyang historikal ay papaksain rin ng papel. Malaking bahagi ng artikulo ay nakatuon sa paglalahad ng mga bagong tuklas at antas ng kaalaman sa demograpiyang historikal sa Pilipinas. Kaakibat nito ay ang pagkilala sa mga isyu, suliranin at tunguhin ng nasabing larangan. Sa huli ay bibigyang pansin ang ilang mahahalagang paksang pananakisik na maaaring mapagtuunan ng mga nais mag-aral tungkol dito. Sa papel na ito, naipaliwanag ang kahalagahan ng historikal na demograpiya bilang isang instrumento sa pagpapaunlad ng Historiograpiyang Pilipino.

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## INTRODUCTION

THE PHENOMENAL GROWTH AND EXPANSION OF AREAS OF INQUIRY in Philippine historical research has been one of the most remarkable developments in Philippine scholarship for the past twenty years. This condition can be attributed to several major factors. First, the number of local area studies has grown tremendously for the past years that new generation Filipino historians have started to reexamine previously accepted generalizations on Philippine national history. The Manila-centric perspective in the study of the Philippine past is now being abandoned in favor of emphasizing local and regional conditions. Second, new periods of study are being opened as a result of the increasing realization of obvious gaps and gray areas in period studies in the Philippines. The over-emphasis on the revolutionary period as a field of research prompted modern historians to study the causality of events by bringing period studies further and further into the past. Third, a number of archival collections and relevant sources were increasingly being rediscovered and utilized by modern researchers. The sources generated by new historians prompted most researchers to reinterpret their previous generalizations in the light of new data emerging from archival research. The availability of new data sources made possible the expansion of historical research to new areas. This created the fourth condition of utilizing methods of analysis and data management and interpretation which were unfamiliar grounds to former historians. New techniques were being developed and new methods were being utilized in this light. Last, the past twenty years also saw the development of interdisciplinary and multi-disciplinary researches which expanded historical studies beyond political history. Social, economic, cultural, intellectual, as well as religious histories were developed to provide a wholistic and structural perspective of history.

The aim of this paper is to assess the development of Philippine historiography given the above mentioned developments. Specifically, the paper will focus on historical demography in the Philippines as part of the increasingly modernizing and expanding territory of historical studies. This paper shall be comprised of several sections. First, the "territoriality" of historical demography will be defined. The areas of concern as well as the subjects of research will be discussed in this section. Second, a discussion of the sources frequently utilized by demographic historians and historical demographers will follow. Afterwards, several discussions on the methods and techniques in historical demographic research will be made. A major portion of this paper deals with a discussion on the current research findings

in Philippine historical demography. The issues, trends, problems and prospects of Philippine historical demography will be analyzed in this section. Last, an agenda for research will be made for future historians to consider. It is the hope of this author that the assessments made herein will challenge Filipino historians to indulge in historical demography to further enhance the development of the field.

## THE TERRITORY OF HISTORICAL DEMOGRAPHY

Historical demography deals with the scientific study of fertility, mortality, migration and other demographic events as experienced by historical populations. On fertility events of historical populations, the sub-discipline is concerned with the study of birth rate fluctuations, child-woman ratio, the total marital fertility rates, as well as birth patterns and seasonalities. On mortality events, it is concerned with fluctuations in death rates across times, infant mortality rates and crisis mortality experiences in society. It may be linked with studies in morbidity experiences. The study of the effects of diseases in populations as well as endemicy studies and epidemiology is part of this area of research.

Moreover, the movements of population in terms of migration patterns are also part of historical demography. Migration patterns in historical periods may be internal (occurring within the society) or international (cross-country migration patterns). This may have significant implications on man-land ratio and population density of specific localities. Specific areas like inheritance patterns, marriage and family composition patterns household conditions as well as studies on genealogies and family histories are special concerns of historical demographers.

Historical demography, therefore, is part of social history. It is concerned with the experience of everyone's lives—their births, deaths, marriages, families and households.<sup>1</sup> It deals with experiences of people ranging from everyday life to long term movements.<sup>2</sup>

Being an interdisciplinary product of the fusion of the two disciplines of history and demography, historical demography utilizes the causal analysis and time series studies being provided by the discipline of history in understanding the development of demographic conditions which characterize the patterns of fertility, mortality, migration, and other concerns of the contemporary period. On the other hand, historical debates centering on the conditions of society in several historic

periods may be understood with the use of demographic methods and techniques.

In this sense, the territory of historical demography traverses disciplinary boundaries. In the words of T.H. Hollingsworth,

“... The ideal historical demographer will need to have a keen historical sense and command of all the knowledge and resources of modern demography, requiring a thorough acquaintance with the methods and findings of every system of ... census and vital registration... He will be deeply versed in economics, sociology, anthropology, climatology, epidemiology and gynecology: and he will understand the mathematical techniques of the statistician so well that he can advance improvements on them his own.”<sup>3</sup>

The birth of historical demography, therefore, is premised on the development of interdisciplinary research. Studies on mental structures, mass psychology, economics, health, ecology and environment, peasant and labor conditions as well as statistics and computer applications are relevant co-disciplines of historical demography. The development of computer technology made possible the advancement of historical demographic analysis. The previously extremely tedious and labor intensive studies became more manageable through the utilization of computer software packages.<sup>4</sup>

#### SOURCES OF HISTORICAL DEMOGRAPHIC RESEARCH

Specific conditions of sources of data should be met before an in-depth analysis of the historical demography of a specific area can be made because of the uniqueness of the area of research for historical demography. Special caution should be made in order to minimize errors in estimates and computation. In fact, one of the pioneers of historical demographic studies specifically noted that correct assumptions, the right processing of data collected and the correct analysis of these processes data are pre-requisites for historical demography studies to produce the best conclusions that can be drawn from extant materials.<sup>5</sup>

A listing of possible sources and their potentials for further research in the Philippines is both necessary and imperative if an assessment of historical demography in the country is to be made.

Historical demography traditionally deals with pre-census demographic conditions. However, since pre-census in the Philippines never attained the character of regularity, the varying qualities of census data make the application of contemporary demographic methods problematic. Hence, one may extend the coverage of historical demography in the Philippines up to the end of the Second World War.

Another problem in dealing with sources is the poor coverage of data. Underregistration is notable not only in pre-census data but in pre-war censuses as well. This may be due to the colonial conditions under which such data were produced. The fear of military and labor conscription and tax collection hampered the delivery of correct registration data.

Despite their limitations, the volume and extent of data coverage in the Philippines still pose a promise and potential for future researches. There are two kinds of data discernible in the sources. The first is the micro/nominal data which lists the names and vital information of the individual experiencing demographic events such as birth, death, and marriage. The aggregate data on the other hand, lists the number of entries per locality.

The Catholic parish records of births, deaths, marriages and confirmations are major micro-nominal sources. Up to 1903, the time of the first civil census, there were about 1,000 parishes which existed in the country with significant record holdings. In the 1970s, Peter Smith initiated a project of making an inventory of the holdings of these parishes. With the help of the Church of Latter-Day Saints and the Archbishopric of Manila, a microfilming project of these records was started.<sup>6</sup> About 60% of the parishes were inventoried and microfilmed copies of the records are deposited with the University of Santo Tomas archives.<sup>7</sup>

Aside from these records, households listings are sometimes available in some of the parishes. Oftentimes called *plan de almas* (literally, plan of souls but actually a listings of inhabitants for tax purposes), this list provides a rough estimate of village populations when available. This may also provide for denominator upon which the crude birth rate and the crude death rate can be computed (number of baptisms divided by the number of inhabitants in the *plan de almas* multiplied by 1,000 may give a crude birth rate for the parish).

The vital registration data available in the town halls may also be utilized as a source of historical demographic data. This civil

registration was conducted throughout the twentieth century, although coverage is poor in some cases.

For aggregate data, local parish population counts originating from the parishes can now be found in the Manila Archdiocesan Archives, the Philippine National Archives and other special collections. Moreover, contemporary sources, travelers accounts and statistical books can also be utilized for further analysis.<sup>8</sup>

Moreover, tribute and tax rolls, as well as labor and military conscription data may also yield vital information on Philippine population history.<sup>9</sup>

Genealogical records may also be utilized as a source of historical demographic data. Although these records may not provide the demographic features for an entire population, certain characteristics of sample populations may be generated by using these records. Another feature of this source is the absence of regularity in its production, unlike the genealogies of Europe and China. Most of the genealogies in the country are in the repositories and private collections of elite families, and majority of the lower class Filipinos do not keep records for themselves.<sup>10</sup>

#### CURRENT TRENDS IN PHILIPPINE HISTORICAL DEMOGRAPHY: A REVIEW

Even though still in its incipient stage of development, historical demography has already contributed a lot to the growing body of scholarship in studies in local history of the Philippines. For example, Brian Fegan analyzed the relationship between land tenorial patterns and class structure with population increase in Central Luzon.<sup>11</sup> Ng Shui-meng's dissertation on Nagcarlan, Laguna, on the other hand, discussed marriage and family formulation patterns in the 19<sup>th</sup> century parish by applying a partial family reconstitution method. Utilizing two major marriage cohorts, she was able to show the possible links between the death of the father and the marriage timing of the eldest son—an explanation on the links between parental survivorship and inheritance issues.<sup>12</sup>

Utilizing the parish registers of baptisms, burials and marriages, Ng was able to investigate marriage patterns and locality of partners by utilizing historical demographic techniques.

Peter Smith utilized demographic methods and historical sources in explaining the phenomenon of delayed marriages and celibacy as a social

response to population and land pressure on the Ilocanos. Outmigration and land colonization were also explained as historical responses of the Ilocanos to these demographic pressures.<sup>13</sup> Utilizing the Cebu parish records, Michael Cullinane and Peter Xenos analyzed outmigration, land utilization, population growth and birth and death rates in the several “zones” of the island of Cebu.<sup>14</sup> The parish of Tigaon in the Bicol region was the subject of Norman Owen’s investigation on local historical demography. Also utilizing the parish records as well as other archival sources, Owen followed the “trails” of mortality, fertility and nuptiality patterns in coming up with specific characteristics of the Tigaon population, the problem of underregistration notwithstanding.<sup>15</sup>

Aside from the above-mentioned local studies which have very clear historical demographic contents, a number of historical studies covering most of the archipelago is also worth mentioning. On birth rates in historical Philippines, Smith presented estimates of the level of fertility at the turn of the century.<sup>16</sup> Owen and Smith, on the other hand, published their respective studies on mortality in the 19<sup>th</sup> century.<sup>17</sup>

Remarkable advancements are also evident in the historical studies on diseases and epidemics. The cholera and smallpox epidemics of the 19<sup>th</sup> century, for example, were scientifically scrutinized not simply as a subject of the history of medicine, but as part of the context of a larger socio-economic and political framework. Ken de Bevoise<sup>18</sup>, Reynaldo Iletto<sup>19</sup>, as well as Rodney Sullivan<sup>20</sup> significantly contributed to the development of the history of epidemics in the Philippines.

The development of population growth and population change in the context of Southeast Asian historical experiences are among the major concerns of Philippine historical demography. In this light, Owen, Smith and Ng provided fresh insights on the subject matters.<sup>21</sup>

Based on the above review of the major works on Philippine historical demography, several points can be made with regard to the state of scholarship of historical demography in the Philippines. First, the utilization of parish registers of baptisms, burials and marriages were significantly employed in trying to find out the conditions of births, deaths and nuptiality, respectively, in the Philippines. Majority of these parish registers were deposited in the parishes but the quality and extent to which these records may yield significant data may vary from one parish to another.<sup>22</sup> Moreover, since

the registers were made for lowland Christian provinces, those who remained independent of Spanish colonialism never developed a similar record system parallel to the parish records. Second, there is a tendency for these studies to emphasize local and specific conditions of the region or locality under study. Third, the growth of the level of significance of local studies as a result of this need not be emphasized, given the obvious bent of these studies towards local historical research.

#### METHODS AND TECHNIQUES IN HISTORICAL DEMOGRAPHY: PROSPECTS FOR THE FILIPINO HISTORIAN

Several methods and techniques employed by historical demographers may be applied to Philippine historical studies. Seasonality studies, family, reconstitution methods, microsimulation and population inverse projection are but some of the techniques which may be applied to the Philippines with prospects of significant results.

Seasonality studies may be applied by using spreadsheet application to parish registers of baptisms, burials and marriages. For example, burial registration can be tallied by month in decadal totals and can be analyzed as seasonality of deaths. The same method can be applied for the birth and marriage events. The results of these events may be interpreted based on an understanding of the socio-cultural matrix under which the seasonality of events operates. For example, the low incidence of marriage for the months of March and April may be due to church prohibition as regard the initiation of carnal relationships during the period of Lent. Birth events for December and January may also be at their lowest level since children born on these months can be presumed to have been conceived on March and April, respectively. On the other hand, the peak season for Filipino marriages are the months of May (harvest season and fiesta celebrations) and January (the belief that one may have good luck by experiencing a blessed event at the start of the year). Surprisingly, the months of June (the start of the typhoon and flood seasons) and December (the end of the year) are not very popular as marriage months.<sup>2,3</sup>

For burial seasonality, one may observe that June and July are seasons of dying for Filipinos. This may be due to the rains and the floods which normally cause the onset of epidemic diseases in the country.

The technique of family reconstitution, on the other hand, may be applied by following the individual's appearance on the parish records of baptisms,



burials and marriages and linking this individual with the other members of his family. One may note, however, that the method requires certain conditions before one can undertake the project. First it requires a long term series of unbroken data. Missing records and poor quality of registration may not be suitable conditions for family reconstitution. The other important criteria for choosing a parish for family reconstitution is its stable population. A frontier territory, areas marked in-migration or out-migration and newly converted territories may not yield the same quality of data necessary for family reconstitution. Moreover, the method is one of the most labor intensive in historical demography—so tedious that Norman Owen has been working on Ticao for about nine years and Peter Xenos on Nazcarlan for more than two decades and yet a partial reconstitution is the only significant finding done thus far.<sup>24</sup>

The use of population inverse projection technique with the help of McCaa and Perez's *Populate* program may be a sound technique in computing demographic rates and estimating population conditions of the past. This can be done by a base population of a census year (the 1903 census) and projecting inversely the demographic conditions of the past, taking into consideration assumptions of birth and death rates, migration patterns and abnormal conditions like the outbreak of epidemics, wars and revolution. This may be a feasible project if the given assumptions and estimates are correct.

## CONCLUSION

Although still a young field or area of study, historical demography has been able to contribute immensely in the development of Philippine historiography. Several issues can also be further discussed to deeply understand the nation's past. The demography of frontier areas as well as migration patterns of historical populations may be undertaken as a field of study. Land tenurial patterns and their relationships with population density can also be discussed outside of the regions already studied. Moreover, the demography of ethnic groups and its compositions may advance ethnic studies in the country. For example, James Warren, in his seminal study on Sulu, estimated a demographic infusion of about 200,000 to 300,000 slaves moved into the Sulu Sultanate by means of Iranun and Samal vessels.<sup>25</sup> This significant demographic change, an infusion of an estimated average of 2,000 to 3,000 slaves a year, created a new demographic characteristics for the Sultanate.

Another important issue that may be analyzed is the applicability of Western demographic models to Philippine conditions. The theory of demographic transition (of a demographic regime experiencing low birth and death rates) as a model of natural demographic experience of universal nature, may not be applicable to the Philippine setting. A comparative analysis of other demographic regimes (in Southeast Asia or Latin America, perhaps) may provide us an insight into the correct pattern of demographic experience that the Philippines have had in the past.

The prospects of research and the potential conclusions that the sources may yield as products of historical demographic inquiry may be aborting. Given the correct impetus and proper agenda for research, the challenge posed by demographic history may soon be translated into actual historical demographical findings for the Philippines.

## NOTES

- <sup>1</sup> Peter Xenos, "Toward an Historical Demography for Southeast Asia." *East-West Population Institute Working Paper* Number 57, 1989.
- <sup>2</sup> For a comprehensive definition of historical demography as sub-discipline of history and demography. The following titles are highly recommended: T.H. Hollingsworth, *Historical Demography*, London: The Sources of History is Limited, 1969; E.A. Wrigley, *Population and History*, New York: McGraw Hill, 1969; Luis Henry. "Historical Demography," *Daedalus*, 97,2, Spring 1968, pp.385-396; D.V. Glass and D.E.C. Eversley (eds.), *Population in History*, Chicago: Aldine Publishing Co., 1965 and J. Dennis Willigan and Katherine A. Lynch, *Sources and Methods of Historical Demography*, New York: Academic Press, 1982.
- <sup>3</sup> T.H. Hollingsworth, *op. cit.*, p.11
- <sup>4</sup> For an example of computer program designed specifically for historical demography, see Robert McCaa and Hector Perez Brignoli, "Topulate: From Births and Deaths to the Demography of the Past, Present and Future." Center for Population Analysis and Policy, Humphrey Institute of Public Affairs, University of Minnesota, Working Paper 89-06-1, June 1989.
- <sup>5</sup> T.H. Hollingsworth, "The Importance of the Quality of the Data in Historical Demography," *Daedalus*, 97,2 Spring 1968. pp 415-432.
- <sup>6</sup> Peter C. Smith, "Demographic History: An Approach to the Study of the Filipino Past," in John Larkin (ed.), *Perspectives on Philippine Historiography: A Symposium*. Yale University Southeast Asia Studies Monograph Series No. 21, 1979, pp.27-46.
- <sup>7</sup> I am indebted to Peter Xenos (Smith) for this information.
- <sup>8</sup> The following can be utilized for this purpose: Yldefonso Aragon, *Estados de la poblacion de Filipinas correspondiente a el Año de 1818*, Manila: Imp de D.M.M., 1820; Manuel Bizeta

and Felipe Bravo, *Diccionario geográfico, estadístico, histórico, de las Islas Filipinas*, 2 vols. Madrid: Imp. de José de la Peña, 1850-1851; Agustín de la Cavaña y Mendez de Vigo. *Historia geográfica, geológica y estadística de Filipinas*, 2 vols., Manila: Imp. de Ramirez y Giraudier, 1876; *Censo de población de las Islas Filipinas perteneciente al Año de 1876. Formado por el Arzobispado de Manila*, Manila: Estab. Tipogr. del Real Colegio de Santo Tomas, 1878; Félix Huerta, *Estado geográfico, estadístico, histórico-religioso de la Santa y Apostólica Provincia de S. Gregorio Magno. Desde su fundación en el Año 1577 hasta el de 1853*, Manila: Imp. de los Amigos del Paris, 1855; Joaquín Martínez de Zúñiga, *Estadismo de las Islas Filipinas: o mis viajes por este país*. Madrid: Imp. de la Viuda de mi Minuesa de los Rios, 1893. However, most of these sources also came from reports of the parish priests. A record linkage of these and the other archival and parish records may yield promising results.

- <sup>9</sup> Sec D.D. Corpuz, *The Roots of the Filipino Nation*. Quezon City: Aklahi, 1989, Vol. 1, Appendix 1: "The Population of the Archipelago, 1565-1903." Caution must also be exercised in the utilization of tribute payments since these were records of heads of the family and the multiplier varied significantly across time thus opening possibilities for error in computing population estimates.
- <sup>10</sup> An example of this genealogical records is Oscar M. Lopez (ed.). *The Lopez Family, Vol. 1: Its Origins and Genealogy: Being Chiefly an Account of the Eight Main Lines and Seven Generations of Lopezes: Vol. 2: Documents in the Philippine National Archives (1844-1902)*, Pasig: Eugenio Lopez Foundation, 1982.
- <sup>11</sup> Brian Fegan, "Establishment fund, population increase and changing class structure in Central Luzon," *Canberra Anthropology*, 1978, pp. 24-43.
- <sup>12</sup> Shui-meng Ng "Demographic Change, Marriage and Family Formation: The Case of Nineteenth Century Nagcarlan, the Philippines," Ph.D. Dissertation, University of Hawaii, 1979.
- <sup>13</sup> Peter C. Smith. "Population Pressure and Social Response on the Ilocos Coast in the Philippines." East-West Population Institute Working Paper No.2, 1981.
- <sup>14</sup> Michael Cullinane and Peter Xenos, "Constructing a Regional demography from Local sources: Cebu Province in the Spanish Philippines," unpublished paper, January 1991.
- <sup>15</sup> Norman Owen, "Life, Death and the Sacraments in a Nineteenth-century Bikol Parish." Paper prepared for the Asian Studies Association of Australia Sixth National Conference, University of Sydney, 11-15 May 1986.
- <sup>16</sup> Peter Smith, "The Turn-of-the-Century Birth Rate: Estimates from Birth Registration and Age Structure." in *Demographic Path to Modernity*, Quezon City: UP Press, 1975.
- <sup>17</sup> Peter Smith, "Crisis Mortality in the Nineteenth Century Philippines" Data from Parish Records. *Journal of Asian Studies*, 38,1, November 1978. 51-76; Norman Owen (ed.), *Death and Disease in Southeast Asia: Exploration in Social, Medical and Demographic History*. Singapore: Oxford University Press, 1987, pp.91-114.
- <sup>18</sup> Ken de Bevoise, "Until God Knows Where: Smallpox in the Late-Colonial Philippines," in *Pacific Historical Review*, 59,2, May 1990, 149-185; see also Ken de

- Bevoise, "The Comprised Host: The Philippine-American War in Epidemio-logical context." Ph.D. Dissertation, University of Oregon, 1986.
- <sup>19</sup> Reynaldo C. Ileto. "The Politics of Cholera in the late Nineteenth Century Philippines," paper presented to the 57th ANZAAS Congress at James Cook University, Townsville, Queensland, Australia. 27 August, 1987; and Reynaldo C. Ileto. "Cholera and the Origins of the American Sanitary Regime in the Philippines, in D. Arnold (ed.). *Imperial Medicine and Indigenous Societies: Disease, Medicine and Indigenous Societies: Disease, Medicine and Empire in the Nineteenth and Twentieth Centuries*, Manchester: Manchester University Press, 1988.
- <sup>20</sup> Rodney Sullivan, "Cholera and Colonialism in the Philippines, 1899-1903," in Roy MacLeod and Milton Lewis, *Diseases, Medicine and Empire; Perspectives on Western Medicine and the Experience of European Expansion*. London: Routledge, 1988.
- <sup>21</sup> Norman Owen, "The Paradox of Nineteenth Century Population Growth in Southeast Asia: Evidence from Java and the Philippines," in *Journal of Southeast Asian Studies*, 18, 1, March 1987, 45-57; Peter Smith and Shui Meng Ng, "The Components of Population Change in Nineteenth Century Southeast Asia: Village Data from the Philippine," in *Population Studies*, 36, 2, 1982, 237-255.
- <sup>22</sup> For a description of the parish inventory project initiated by Peter Smith, see his work "Demographic History: An Approach to the Study of the Filipino Past," in John A. Larkin (ed.). *Perspective on Philippine Historiography: A Symposium*. Yale University Southeast Asia Studies Monograph Series No. 21, 1979, 27-46.
- <sup>23</sup> See Francis A. Gealogo, "Birth, Death and Marriage Seasonality: The Parish Records of San Jose and Cuenca, Batangas During the 19th Century," paper presented to the Asian Historical Demography Workshop, 23rd Summer Seminar on Population, East-West Center, Hawaii, June 1992.
- <sup>24</sup> Norman Owen, "Philippine Historical Demography: Trends and Prospects," paper presented to the 3rd International Philippine Studies Conference, Quezon City, July 1989.
- <sup>25</sup> James Warren, *The Sulu Zone, 1768-1898*, Quezon, City New Day, 1985, 208.

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